

1 **WHAT IS CLAIMED IS:**

2 1. A control valve for an inflatable apparatus comprising
3 a horn-like body having
4 a front;
5 a rear;
6 a center;
7 a central portion;
8 a chamber defined in the rear and having an inner wall;
9 a tubular part defined in the central portion of the horn-like body
10 concentrically around the center, having an inner wall and communicating with
11 the chamber; and
12 two recesses defined respectively at diametrically opposite sides
13 of the inner wall of the tubular part;
14 a seat mounted on the rear of the body and having
15 a central portion;
16 an outer edge;
17 a rear surface;
18 a front surface;
19 a primary outlet formed through the central portion of the seat,
20 communicating with the chamber and having a diameter;
21 a secondary outlet formed through the seat between the primary
22 outlet and the edge, communicating with the chamber and having a diameter and
23 a secondary valve seat having an outer diameter larger than the diameter of the
24 secondary outlet and attached concentrically outside the secondary outlet, a

1 central through hole, an outside surface and an inside surface;

2 an inlet formed through the seat between the primary outlet and

3 the edge and diametrically opposite to the secondary outlet and communicating

4 with the chamber;

5 a discharge nozzle mounted on the rear surface of the seat around

6 the secondary outlet;

7 at least two hollow poles formed on the front surface of the seat;

8 at least two first resilient members mounted respectively in the

9 hollow poles; and

10 a cover movably mounted inside the body and having

11 a rear;

12 an inside;

13 a center;

14 an outside surface;

15 a radial flange formed at and extending radially out from the rear

16 of the cover, having an outer edge and mounted in the chamber in the horn-like

17 body;

18 an O-ring mounted between the outer edge of the radial flange of

19 the cover and the inner wall of the chamber in the horn-like body;

20 two rods formed on the rear of the cover, mounted respectively in

21 the hollow poles and abutting the first resilient members;

22 a secondary shaft formed longitudinally on the inside of the cover,

23 aligned with the secondary outlet, movably extending into the discharge nozzle

24 and having a distal end and a secondary valve disk mounted on the distal end of

1 the secondary shaft in the discharge nozzle to open and close the secondary
2 outlet,

3 a primary shaft formed longitudinally on the inside of the cover at
4 the center, aligned with the primary outlet and having
5 a distal end; and
6 a primary valve disk mounted on the distal end of the
7 primary hollow shaft and a primary valve seat to selectively close and
8 open the primary outlet;

9 two notches defined on diametrically opposite sides of the outer
10 surface of the cover;

11 two buttons movably mounted respectively in the notches and
12 respectively having a distal end and a barb formed on the distal end and engaging
13 the corresponding recess, and

14 two second resilient members radially mounted respectively in
15 the notches and abutting and pressing the buttons out radially.

16 2. The control valve as claimed in claim 1, wherein
17 the secondary valve disk is mounted in the discharge nozzle and has
18 a center;
19 an inside surface;
20 an outside surface; and
21 a disk shaft formed on the inside surface at the center of the
22 secondary valve disk and mounted in the distal end of the secondary shaft; and
23 the secondary valve seat is mounted concentrically outside the
24 secondary outlet so the secondary valve disk selectively abuts the secondary

1 valve seat to close or open the secondary outlet.

2 3. The control valve as claimed in claim 2, wherein the secondary valve

3 seat has an outer diameter greater than a diameter of the secondary outlet.

4 4. The control valve as claimed in claim 1, wherein

5 the primary valve disk has

6 a center;

7 an inside surface;

8 an outside surface;

9 a disk shaft formed on inside surface at the center of the primary

10 valve disk and mounted in the distal end of the hollow primary shaft, and

11 the primary valve seat has

12 an outer diameter;

13 a central through hole;

14 an outside surface; and

15 an inside surface; and

16 the primary valve seat is mounted on the outside surface of the primary

17 valve disk to selectively abut and close and open the primary outlet.

18 5. The control valve as claimed in claim 4, wherein the outer diameter of

19 the primary valve seat is larger than the diameter of the primary outlet.